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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/693,329

10/23/2003

Thomas D. Stahl

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05/12/2006

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EXAMINER

LEE, Y MY QUACH

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 05/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/693,329

Applicant(s)

STAHL, THOMAS D.

Examiner

Lee Y Quach

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-8, 10, 12, 13, 17, 39-45 and 46-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8, 10, 13, 17, 39-42 and 46-50 is/are rejected.
- 7) ☒ Claim(s) 12, 43-45 and 51-53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed February 27, 2006 have been fully considered but they are not persuasive. Applicant stated that none of the cited references discloses a system that "directs output light through a top portion of the means for collecting light" as provided for by all of the claims at issue. It should be noted that cited references whether alone or in combination discloses the limitation of "directs output light through a top portion of the means for collecting light". For instance, Bladowski shows that the output light (figure 7, left and right arrows of the polar axis arrow 36) is directed through (by means of) the top portion of the means (44) for collecting light. Bladowski also shows that the output light (figure 9, the arrows encircling the polar axis arrow) is directed through (existing through or outward passage of light through since the surfaces are semi-reflective) the top portion of the means (66, 68) for collecting light. In addition, Chuang '420 also shows that the output light (figures 2, 3, left and right arrows of the apex) is directed through (by means of) the top portion of the means (423, 426) for collecting light. Accordingly, rejection of the amended claims 1 to 4, 6 to 8, 10, 13, 17 as well as the newly submitted claims 39 to 42 and 46 to 50 follows.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Stanton.

Stanton shows means for collecting light having a plurality of surfaces (161, 162), a plurality of light sources (121, 141) being capable of producing output light and positioned to direct the output light toward the means for collecting light, the surfaces directing the output light from the light sources in a direction towards a target area (Ca, the area where the light is

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illuminated), one of the plurality of light sources directing output light (figures 1A, 2 ... left and right arrows C of the apex) through (by means of) a top portion (the apex area) of the means (16) for collecting light, and a housing (122, 142) for positioning the light sources to direct light toward the means for collecting light.

4. Claims 1, 4 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Bladowski (prior art previously cited).

Bladowski shows means for collecting light having a plurality of surfaces (34, 44, 66, 68), a plurality of light sources comprising a panel of light emitting diodes (12, 52, 54, 62, 64) and being capable of producing output light and positioned to direct the output light toward the means for collecting light, the surfaces direct the output light from the light sources in a direction towards a target area (the lens, figures 6, 7, 9 or the focusing light output to focusing area (column 3, line 59)), and one of the plurality of light sources directing output light (figure 7, left and right arrows of the polar axis arrow 36) through (by means of) a top portion of the means (44) for collecting light. Bladowski also shows that the output light (figure 9, the arrows encircling the polar axis arrow) is directed through (existing through or outward passage of light therethrough since the surfaces are semi-reflective) the top portion of the means (66, 68) for collecting light. With regards to claim 17, a first of the surfaces reflecting light from a first of the light sources, a second of the surfaces reflecting light from a second of the light sources, a third of the surfaces reflecting light from a third of the light sources, and a fourth of the surfaces reflecting light from a fourth of the light sources (figure 9, 62, 66, 64, 68, bottom arrays of diodes, 68, column 4, lines 9 to 14).

5. Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Chuang (6,527,420, prior art previously cited).

Chuang shows means for collecting light having a plurality of surfaces (513, 515, 423, 426), a plurality of light sources (6, 60) being capable of producing output light and positioned to direct the output light toward the means for collecting light, the surfaces directing the output light from the light sources in a direction towards a target area (34) such as an image panel, and one of the plurality of light sources directing output light (figures 2, 3, left and right arrows of the apex) through (by means of) a top portion of the means (423, 426) for collecting light.

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6. Claims 1 to 3, 39, 46 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Williams.

Williams shows means for collecting light such as a light collector having a plurality of surfaces (4, 5, 4b, 5b, 4c, 5c, 4d, 5d, 4e, 5e), a plurality of light sources (B, G, R, W) being capable of producing output light and positioned to direct the output light toward the light collector, the surfaces directing the output light from the light sources in a direction towards a target area (the area where the light is illuminated), one of the plurality of light sources directing light through (figures 1, 2, 4 to 9) a top portion of the light collector, and a housing (2) for positioning the light sources to direct light toward the light collector.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Stanton.

Stanton discloses the invention substantially as claimed including a plurality of parabolic concentrators (column 3, line 61, parabolic) positioned to direct light towards the means for collecting light with the exception of having the light sources comprising panel of light emitting diodes.

Note that it is known that incandescent, fluorescent, halogen, discharge lamp and light emitting diode light sources are interchangeable and/or can be used in combination. It would have been obvious to one skilled in the art to which the subject matter pertains to use the light emitting diodes in place of the light sources of Stanton to not only enhance reliability and longevity of the light sources but also to reduce power consumption and heat generation.

9. Claims 4, 6, 40, 41, 48 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Williams.

Williams the invention substantially as claimed including a plurality of parabolic concentrators (column 4, line 69, parabolic reflectors) positioned to direct light towards the

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means for collecting light with the exception of having the light sources comprising panel of light emitting diodes.

Note that it is known that incandescent, fluorescent, halogen, discharge lamp and light emitting diode light sources are interchangeable and/or can be used in combination. It would have been obvious to one skilled in the art to which the subject matter pertains to use the light emitting diodes in place of the light sources of Williams to not only enhance reliability and longevity of the light sources but also to reduce power consumption and heat generation.

10. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bladowski (prior art previously cited).

Bladowski discloses the invention substantially as claimed with the exception of having the watts and amp as claimed. However, it should be noted that any light emitting diodes is capable of producing 80 lumens at 1 amp and about 1 to 5 watts or 3 watts because the output of the light source is depending on the wattage and current which provides no unusual, unobvious and or unexpected result and is therefore not only deemed to all within a purview of an ordinary engineering design technique but also obvious to one skilled in the art to provide the light emitting diode of Bladowski with lumens at the amp and watts as claimed or other different amps and watts to produce different lumen outputs to accommodate or suit different applications as desired.

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bladowski (prior art previously cited) and Chuang (prior art previously cited) in view of Smith et al. (prior art previously cited).

Bladowski and Chuang disclose the invention substantially as claimed with the exception of including the surfaces having a silicon oxide thin film.

Smith et al. teach the surfaces having a thin film of highly aluminized reflective material or other highly reflective coating (column 3, line 33) to optimize the reflectivity of light, and since a thin film of silicon oxide is used to optimize the performance of light, this other highly reflective coating can obviously include the thin film of material such as silicon oxide.

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It would have been obvious to one skilled in the art to provide the surfaces of Bladowski and Chuang with a thin film of silicon oxide, as shown by Smith et al., for optimizing the reflectivity of light.

12. Claims 10, 42 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams.

Williams discloses the invention substantially as claimed including the surfaces having a highly aluminum reflective material or other suitable material having a good reflecting surface (column 3, lines 62 to 64) to optimize the reflectivity of light, and since a thin film of silicon oxide is used to optimize performance, it would have been obvious to one skilled in the art that this highly reflective surface can include this thin film of material such as silicon oxide to optimize the performance of the means for collecting light.

13. Claims 12, 43 to 45 and 51 to 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y Quach Lee whose telephone number is 571-272-2373. The examiner can normally be reached on Tuesday and Thursday from 8:30 am to 4:30 pm.

Any inquiry of a general nature or relating to the status of this application or proceeding

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should be directed to the customer service 703-308-2733.

Y. Q.
May 9, 2006



Y Quach Lee
Primary Examiner
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